

REMARKS

Claims 1-7, 9 and 11-20 have been examined on their merits, and are all the claims presently pending in the application.

1. The Patent Office objects to the specification as containing embedded hyperlinks and/or browser-executable code. Applicants herein submit a Substitute Specification without the embedded hyperlinks. Applicants are also submitting an Information Disclosure Statement that discloses the three disclosures referenced by the embedded hyperlinks.

2. The Patent Office objects to the disclosure as containing informalities. Specifically, the Patent Office objects to cancel claims being included in the specification. Applicants remind the Patent Office that all references to claims in the specification, cancelled or otherwise, were removed by the Rule 111 Amendment filed on February 27, 2003.

3. Claims 1-6, 9, 11-13, 17, 19 and 20 stand rejected under 35 U.S.C. § 112 (1st para.) as allegedly failing to comply with the enablement requirement. Applicants traverse the rejection of claims 1-6, 9, 11-13, 17, 19 and 20 for at least the following reasons.

The test of enablement is whether one reasonable skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without

undue experimentation.¹ Numerous factors must be considered when determining whether a disclosure satisfies the enablement requirement and whether any necessary experimentation is “undue.” As set forth in MPEP § 2164.01(a), the factors include, but are not limited to:

- a) The breadth of the claims;
- b) The nature of the invention;
- c) The state of the prior art;
- d) The level of one of ordinary skill;
- e) The level of predictability in the art;
- f) The amount of direction provided by the inventor;
- g) The existence of working examples; and
- h) The quantity of experimentation needed to make or use the invention.

Here, the Patent Office only considers factor (h) in stating that a claim directed to a device for compressing a list of final destination addresses for a multicast message is not enabled by the specification which discloses, as an example, how to detect common prefixes between final destination addresses, how to generate a suffix list for final destination with common prefixes and how to add the suffix list to the common prefix. Yet it is improper to conclude that a disclosure is not enabling based on an analysis of only one of the above factors while ignoring one or more of the others. The Patent Office’s analysis must consider all the evidence related to each of these factors, and any conclusion of non-enablement must be based on the evidence as a whole. *See* MPEP § 2164.01(a).

¹ *United States v. Telectronics, Inc.*, 857 F.2d 778, 785, 8 U.S.P.Q.2d 1217, 1223 (Fed. Cir. 1988). See also, *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916); *In re Wands*, 858 F.2d 731, 737, 8 U.S.P.Q.2d 1400, 1404 (Fed. Cir. 1988); and MPEP § 2164.01.

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Furthermore, the Patent Office has failed to establish a reasonable basis to question the enablement provided in specification of the present application. *In re Wright*, 999 F.2d 1557, 1562, 27 U.S.P.Q.2d 1510, 1513 (Fed. Cir. 1993); MPEP 2164.04. The Patent Office relies upon U.S. Patent No. 6,502,140 to Boivie to reject the present application, but Boivie fails to disclose anything more than a common computer for its embodiment of a host system. No mechanism is shown in Boivie, other than a conventional computer system, for the implementation of its addressing technique. The Patent Office has not provides any factual or technical reasoning as to why an artisan of ordinary skill would be able to implement the system disclosed by Boivie, but that same artisan would not be able to use the claimed invention without undue experimentation. The Patent Office has not made any showing that the apparatus required to implement the invention is not readily available. *See In re Ghiron*, 442, F.2d 985, 991, 169 U.S.P.Q.2d 723, 727 (C.C.P.A 1971). The Patent Office has not made any showing that the present invention is directed to an art where results are unpredictable. The burden is on the Patent Office to identify what information is missing and why one of ordinary skill in the art could not supply the information without undue experimentation. Specific technical reasons are always required. *See* MPEP § 2164.04. However, in the instant case, the Patent Office has not provided any cogent technical reasoning as to why one of ordinary skill in the art could not make or use the claimed invention without undue experimentation.

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4. Claims 1-7, 9 and 17-20 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Boivie (U.S. Patent No. 6,502,140). The rejection of claims 8 and 10 is now moot due to their cancellation. Applicants traverse the rejection of claims 1-7, 9 and 17-20 for at least the reasons discussed below.

To support a conclusion that a claimed invention lacks novelty under 35 U.S.C. § 102, a single source must teach all of the elements of a claim. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986). A claim is anticipated only if each and every element as set forth in the claim is found either expressly or inherently in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). A single source must disclose all of the claimed elements arranged as in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). A proper anticipation rejection requires that every element of the claim be found “in a single prior art reference.” *See In re Robertston*, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950 (Fed. Cir. 1999). For anticipation to exist, there must be no difference between the claimed invention and the reference disclosure, as that reference would be understood by one of ordinary skill in the art. *See Scripps Clinic & Research Found. v. Genentech, Inc.*, 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991); *see also, Crown Operations Intn’l, Ltd. v. Solutia, Inc.*, 289 F.3d 1367, 62 U.S.P.Q.2d 1917 (Fed. Cir. 2002). Further, “an anticipating reference must describe the [claimed] subject matter with sufficient clarity and detail to establish that the subject matter existed and that its existence was recognized by persons of ordinary skill in the field of the invention.” *ATD Corp. v. Lydall, Inc.*,

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159 F.3d 534, 545, 48 U.S.P.Q.2d 1321, 1328 (Fed. Cir. 1998) (citing *In re Spada*, 911 F.2d 705, 708, 15 U.S.P.Q.2d 1655, 1657 (Fed. Cir. 1990)). Rejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. Thus, the cited reference must clearly and unequivocally disclose every element and limitation of the claimed invention.

With respect to claim 1, Boivie does not teach or suggest a device that adds a suffix list to a common prefix to create a compound destination address that consists of compressed final destination addresses. Instead, Boivie illustrates a compressed address that necessarily includes intermediate routing addresses along with destination addresses. For example, at col. 4, line 55, Boivie discloses a compound address “R1 (B R2 (C D))” that includes intermediate routing addresses R1 and R2 along with the destination addresses C and D. *See, e.g.*, Figure 1 of Boivie. Boivie does not teach or suggest that the compound address does not include the intermediate routing addresses. The disclosure of Boivie relies upon the intermediate routing addresses being present within the compound address in order for the data packets to arrive at their respective destinations. In contrast, the present invention excludes intermediate routing addresses from being included in a compound destination address.

Independent claim 1 recites, *inter alia*, a means for adding a suffix list to a common prefix to create a compound destination address consisting of compressed final destination addresses. Independent claim 7 recites, *inter alia*, adding a suffix list to a common prefix to create a compound destination address consisting of compressed final destination addresses. Applicants submit that the Patent Office is improperly interpreting the language of claims 1 and

7 contrary to both established Federal Circuit caselaw and the MPEP. The transitional phrase “consisting of” excludes any element or step not specified in the claim. *In re Gray*, 53 F.2d 520, 11 U.S.P.Q. 255 (CCPA 1931); *Ex parte Davis*, 80 U.S.P.Q. 448, 450 (Bd. App. 1948); MPEP § 2111.03. The language of claims 1 and 7 recite that the compound destination address consists of compressed final destination addresses; intermediate routing addresses are excluded by the “consisting of” transitional phrase.

The Patent Office persists, however, in asserting that the compound address R1 (B R2 (C D)) disclosed in Boivie is allegedly equivalent to the compressed final destination address recited in the claims. However, this assertion is unsupportable for the following reasons. First, Boivie’s compound address necessarily includes the intermediate addresses R1 and R2. As contemplated by Figure 1 of Boivie, R1 and R2 are not final destination addresses, but rather intermediate addresses of devices that forward the multicast packets towards their final destination. The multicast packets cannot be sent through the network unless these intermediate addresses (R1 and R2) are included in the compound address of Boivie. Unlike the invention recited in claims 1 and 7, there is no disclosure in Boivie that teaches or suggests that the compound address (for packets being multicast to final destination nodes B, C and D) excludes the intermediate addresses R1 and R2.

In the Response to Arguments section of the November 12, 2004 Office Action, the Patent Office claims that “the exclusion of the intermediated [sic] routing addresses in the final routing addresses of the invented system was not claimed.” *See* pg. 7 of the November 12, 2004 Office Action. The Patent Office’s position is contrary to established caselaw and the MPEP, as

the “consisting of” language necessarily excludes those elements not included in the claim. *In re Gray*, 53 F.2d 520, 11 U.S.P.Q. 255 (CCPA 1931); *Ex parte Davis*, 80 U.S.P.Q. 448, 450 (Bd. App. 1948); MPEP § 2111.03 Applicant submits that the phrase “consisting of” in claims 1 and 7 is sufficient to exclude the intermediate routing addresses that the Patent Office continues to allege are encompassed by claims 1 and 7.

In the Response to Arguments section of the November 12, 2004 Office Action, the Patent Office claims that “the intermediate nodes routing addresses are present in some form in the final routing address of the disclosed invention, as portion A of the final addresses ABCD, ABCE and AFGH on Fig. 1 of the disclosure is an intermediate address for node R1.” This allegation is mere supposition on the part of the Patent Office, and is without foundation. The Patent Office cannot point to anything in the disclosure that supports this allegation that R1 has the same prefix as the nodes D1, D2 and D3. Furthermore, Boivie’s addressing method includes the intermediate routers where the multicast packets “fork” to different destinations, which directly contrasts with Applicants’ invention that excludes the addresses of the intermediate routers from the compound destination address.

Moreover, a compound address created under Boivie’s disclosed method would be stymied in its transmission if, for some reason, intermediate addresses R1 or R2 were unreachable. Boivie discloses that if a routing error occurs, then the sending node (node A in Figure 1 of Boivie) is informed and the node A has to readjust its multicast tree. *See* col. 4, line 64 to col. 5, line 14 of Boivie. In other words, the intermediate addresses R1 and R2 are a necessary component of Boivie’s addressing scheme. In contrast, Applicant’s invention

specifically excludes intermediate addresses from the compound destination address consisting only of compressed final destination addresses.

Based on the foregoing reasons, Applicants submit that Boivie fails to disclose all of the claimed elements as arranged in claim 1. Therefore, under *Hybritech* and *Richardson*, Boivie clearly cannot anticipate the present invention as recited in independent claim 1. Thus, Applicants submit that claim 1 is allowable, and further submit that claims 2-6, 9, 17, 19 and 20 are allowable as well, at least by virtue of their dependency from claim 1. Applicants respectfully request that the Patent Office withdraw the § 102(e) rejection of claims 1-6, 9, 17, 19 and 20.

With respect to claim 7, Boivie does not teach or suggest a method that adds a suffix list to a common prefix to create a compound destination address that consists of compressed final destination addresses. The compound address “R1 (B R2 (C D))” at col. 4, line 55 of Boivie includes intermediate routing addresses R1 and R2 along with the destination addresses. *See, e.g.*, Figure 1 of Boivie. Unlike the present invention, Boivie does not teach or suggest an addressing method wherein the compound address excludes intermediate routing addresses.

Based on the foregoing reasons, Applicants submit that Boivie fails to disclose all of the claimed elements as arranged in claim 7. Therefore, under *Hybritech* and *Richardson*, Boivie clearly cannot anticipate the present invention as recited in independent claim 7. Thus, Applicants submit that claim 7 is allowable, and further submit that claim 18 is allowable as well, at least by virtue of its dependency from claim 7. Applicants respectfully request that the Patent Office withdraw the § 102(e) rejection of claims 7 and 18.

5. Claims 11-16 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Boivie. Applicants traverse the rejection of claims 11-16 for at least the reasons discussed below.

The burden of establishing that a claimed invention is *prima facie* obvious rests on the USPTO. *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). To make its *prima facie* case of obviousness, the USPTO must satisfy three requirements:

- a) The prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the artisan to modify a reference or to combine references. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988).
- b) The proposed modification of the prior art must have had a reasonable expectation of success, as determined from the vantage point of the artisan at the time the invention was made. *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1208, 18 U.S.P.Q.2d 1016, 1022-23 (Fed. Cir. 1991).
- c) The prior art reference or combination of references must teach or suggest all the limitations of the claims. *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991); *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (CCPA 1970).

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, the nature of a problem to be solved. *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Alternatively, the

motivation may be implicit from the prior art as a whole, rather than expressly stated. *Id.*

Regardless of whether the USPTO relies on an express or an implicit showing of motivation, the USPTO is obligated to provide particular findings related to its conclusion, and those findings must be clear and particular. *Id.* A broad conclusionary statement, standing alone without support, is not “evidence.” *Id.*; *see also, In re Zurko*, 258 F.3d 1379, 1386, 59 U.S.P.Q.2d 1693, 1697-98 (Fed. Cir. 2001).

In addition, a rejection cannot be predicated on the mere identification of individual components of claimed limitations. *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000). Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. *Id.* Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d at 1316-1317 (*citing B.F. Goodrich Co. v. Aircraft Braking Sys. Corp.*, 72 F.3d 1577, 1582, 37 U.S.P.Q.2d 1314, 1318 (Fed. Cir. 1996)); *see also, Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (B. Pat. App. & Inter. 1985)) (“To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.”).

Boivie does not teach or suggest a device that adds a suffix list to a common prefix to create a compound destination address that consists of compressed final destination addresses, as

recited in claim 1 and included in claims 11-13 by virtue of their dependency from claim 1. As discussed above with respect to claim 1, Boivie does not teach or suggest a device that adds a suffix list to a common prefix to create a compound destination address that consists of compressed final destination addresses. The compound address “R1 (B R2 (C D))” at col. 4, line 55 of Boivie includes intermediate routing addresses R1 and R2 along with the destination addresses. *See, e.g.*, Figure 1 of Boivie. Unlike the present invention, Boivie does not teach or suggest an address compression device wherein the generated compound address excludes intermediate routing addresses. Thus, Applicants submit that the Patent Office cannot fulfill the “all limitations” prong of a *prima facie* case of obviousness, as required by *In re Vaeck*.

Since Boivie fails to disclose the exclusion of intermediate routing addresses in a compound address, Applicants submit that one of skill in the art would not be motivated to modify Boivie. Although the Patent Office provides a motivation analysis with respect to adapting differently sized prefixes, Boivie lacks any teaching about the desirability of a compound address that specifically excludes intermediate routing addresses. In contrast, Boivie specifically includes intermediate routing addresses in its disclosed addressing scheme. Applicants submit that the Patent Office cannot fulfill the motivation prong of a *prima facie* case of obviousness, as required by *In re Dembiczak* and *In re Zurko*.

Based on the foregoing reasons, Applicants submit that Boivie fails to disclose all of the claimed elements as arranged in claim 1, and included via dependency in claims 11-13. Therefore, Boivie clearly cannot render the present invention obvious as recited in claims 11-13.

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Thus, Applicants submit that claims 11-13 are allowable, and respectfully request that the Patent Office withdraw the § 103(a) rejection of claims 11-13.

Boivie does not teach or suggest an addressing method that adds a suffix list to a common prefix to create a compound destination address that consists of compressed final destination addresses, as recited in claim 7 and included in claims 14-16 by virtue of their dependency from claim 7. As discussed above with respect to claim 7, Boivie does not teach or suggest an addressing method that adds a suffix list to a common prefix to create a compound destination address that consists of compressed final destination addresses. The compound address “R1 (B R2 (C D))” at col. 4, line 55 of Boivie includes intermediate routing addresses R1 and R2 along with the destination addresses. *See, e.g.*, Figure 1 of Boivie. Unlike the present invention, Boivie does not teach or suggest an addressing method wherein the generated compound address excludes intermediate routing addresses. Thus, Applicants submit that the Patent Office cannot fulfill the “all limitations” prong of a *prima facie* case of obviousness, as required by *In re Vaeck*.

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Applicants submit that the Patent Office cannot fulfill the motivation prong of a *prima facie* case of obviousness, as required by *In re Dembiczak* and *In re Zurko*.

Based on the foregoing reasons, Applicants submit that Boivie fails to disclose all of the claimed elements as arranged in claim 7, and included via dependency in claims 14-16.

Therefore, Boivie clearly cannot render the present invention obvious as recited in claims 14-16.

Thus, Applicants submit that claims 14-16 are allowable, and respectfully request that the Patent Office withdraw the § 103(a) rejection of claims 14-16.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


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